## WHAT IS CLAIMED IS:

1. A method of rapidly determining the transmission time and range of a position message under an Internet virtual reality environment, comprising the steps of:

5       (A) dividing a virtual scene into a plurality of blocks for determining an area of interest;

(B) defining a block where an user is in and blocks neighboring to the block as a low interactive area of interest;

(C) dividing each block of the low interactive area of interest into 10  a plurality of sub-blocks;

(D) defining a sub-block where the user is in and sub-blocks neighboring to the sub-block as a high interactive area of interest; and

(E) transmitting a message to update state of virtual reality based on different settings of the low interactive area of interest and the high 15  interactive area of interest when the virtual reality environment reaches a predetermined inconsistency.

2. The method as claimed in claim 1, wherein, in steps (A) and (C), the virtual scene and block are divided in a square division manner.

3. The method as claimed in claim 1, wherein, in steps (A) and 20  (C), the virtual scene and block are divided in an interlaced square division manner.

4. The method as claimed in claim 1, wherein, in step (E), a timer is used to count a predetermined length of time for updating the state when the count is reached, the predetermined length of time being set 25  relatively shorter for the high interactive area of interest than that for the

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low interactive area of interest.

5. The method as claimed in claim 1, wherein, in step (E), a dead reckoning algorithm is used to estimate a position of the user in a virtual reality scene so as to update the state when a difference between the estimated user's position and the actual position is larger than a predetermined threshold value, the dead reckoning algorithm being to set to have a relatively small threshold value for the high interactive area of interest and a relatively large threshold value for the low interactive area of interest.

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